



Douglas County Internal Audit

November 9, 2011

Douglas County Board of Commissioners
1819 Farnam Street, Suite LC2
Omaha, NE 68183

Attention: Mary Ann Borgeson, Clare Duda, Mike Boyle, Marc Kraft, PJ Morgan,
Chris Rodgers and Pam Tusa

Mark Conrey, Chief of Communications
911 Emergency Call Center
3603 No. 156th St.
Omaha, NE 68116

Dear Commissioners and Mr. Conrey:

Subject: 911 EMERGENCY CALL CENTER OPERATIONS AUDIT

I have completed an audit of the County's 911 Emergency Call Center operations. The purpose of the audit was to assess the adequacy and effectiveness of processes used for handling calls routed to the 911 Call Center. The audit revealed that, overall, the 911 Call Center was operated in a very professional and technologically advanced manner.

Internal Audit noted numerous positive aspects of the operations. Operators are trained and evaluated by certified professionals based upon recognized industry standards. IT personnel have developed secure web-based software used throughout its operations. The department also provides RSS feeds to Twitter that inform the public of dangerous situations within the County. The data that is generated by the department including voice recordings and dispatch information is readily available and can be easily accessed going back a minimum of three years. Although the department is operated effectively overall, there are opportunities to improve aspects of its operations. The details related to the audit appear below.

Background

The Douglas County Communications center serves all of Douglas County including Omaha, Boystown, Ralston, Bennington, Valley, Waterloo, Ponca Hills, and Irvington. Calls are routed based upon the geographical origin of the call. Calls are initially received by 911 Operators and dispatched to the appropriate responder based upon the emergency location, type of emergency

and its priority based upon the nature of the call. Virtually all of the information created by the operational employees as well as the information flowing into and out of the call center is stored in secure databases.

The Call Center operations have a direct impact on the safety of the citizenry of Douglas County and could potentially result in major liabilities if it was not run effectively. For this reason, it was a high priority for Internal Audit to conduct an examination of the Call Center. Due to resource constraints within Internal Audit, the examination included only operations related to 911 Operator functions. The specific objectives and scope of the audit appear below.

Objective

The audit was conducted to determine if the 911 Call Center had effective policies and procedures in place to achieve the following objectives:

- Management has defined and communicated objectives for prompt emergency response times for all incoming calls.
- Management has established procedures to accurately monitor and report response times for all pertinent areas (i.e., by day, shift, employee, other).
- Management has established procedures for protocol to follow when receiving incoming calls including appropriate responses dependent upon the nature of the call. (e.g., emergency, non-emergency, foreign language, hang-ups, hazmat).
- Management has a policy in place to monitor the quality of operator performance.
- Quality checks are documented.
- Management has procedures in place to record all pertinent aspects of a call. (e.g., control #, time, names, addresses, etc.)
- Management has established appropriate training needs for all emergency response operators. Training is tailored by employee classification and individual needs.
- There is a process in place to lodge complaints regarding 911 services. The process includes an independent investigation and prompt resolution of complaints including an appropriate escalation process.

Scope

The 911 Operator policies and procedures in effect as of the date of the commencement of fieldwork on October 11, 2011 were examined. The examination including testing of records created in the various databases and documented in physical files from January 1, 2011 through October 20, 2011.

Methodology

Internal Audit chose to assess the 911 Emergency Operator Response operations using universally recognized standards developed by the Commission on Accreditation for Law Enforcement Agencies (CALEA). Internal Audit wants to emphasize that this was not a CALEA audit. Internal Audit chose to assess the department using only the standards that would measure

the department's performance as related to the objectives noted above. The standards and expectations used are included in Appendix I.

The evidence gathering and analysis techniques used to meet the audit objectives included, but were not limited to:

- Interviews of Call Center management and operational staff.
- Reviews of departmental directives and other policies and procedures.
- Review of the Dispatcher Training Manual.
- Examination of the tests and evaluations for all 911 Operator Trainees hired in 2011.
- Sampling of training sign-off sheets to verify all shifts were included and signed by staff.
- Direct observation of 911 Emergency Operators including listening to emergency calls.
- Demonstrations and examinations of records of the following systems to ensure that all incidents were captured, uniquely identified and no duplicates existed:
 - Computer Aided Dispatch
 - Operational Incident Management (Requests for Reviews and Complaints)
 - NICE and Red Box (software used to listen to voice recordings)
 - Power MIS (call information querying and reporting)
 - 911 Website (used in voice recording requests and fulfillment)
- The systems identified above were used in direct testing in the following ways:
 - Thirty of the one hundred eighty-six registered incidents logged for 2011 in the Operational Incident Management (OIM) system were examined to determine that they were handled and resolved promptly and appropriately. The open incidents were also reviewed to see if they were being addressed in a timely fashion.
 - Power MIS was used to verify that the 911 Operator Response times were being reported accurately as shown in the 911 User Group reports for the last three months of 2011.
 - The Red Box system was tested to determine if voice recordings could be readily obtained going back through 3 years of data.
 - The open requests for 911 information were examined to see that fulfillment of requests were being handled promptly.

The issues identified by the audit appear in the Findings section below.

Findings

Written Policies and Procedures

Criteria: Comprehensive, written policies and procedures help ensure management's directives and goals are clearly communicated, understood and implemented in a consistent manner across all levels of the organization.

Condition: The areas that were reviewed operated using consistent policies and procedures. However, there were no formal, written policies or procedures regarding management reporting, complaint logging and resolution, and continuing training for current employees.

Effect: Without comprehensive, written policies and procedures management cannot be certain that all expected operating standards have been appropriately communicated, understood and consistently followed by all personnel when carrying out their job duties.

Cause: The 911 Call Center has devoted resources to areas other than the preparation of written policies and procedures for the functions identified above.

Recommendation: Establish and communicate appropriate written policies and procedures for all 911 Operator response functions including management reporting of operations.

Management Response: Management will establish written procedures that specify that annual training requirements will be developed at the beginning of year and published and recorded when completed. Once agreed upon performance measures can be determined with my supervisor and the 911 User Board, a directive will be established that specifies the required reports. A directive will be developed and published directing the handling of complaints once the database program can be debugged.

Request for Review/Complaint Incidents

Criteria: There should be written policies and procedures in place regarding the conclusion of fact for each investigation of misconduct allegations. The procedures should include the following elements:

- A system is in place to maintain records of all complaints against the agency or employees.
- Requirements for documenting contact with complaint initiators.
- Prompt follow-up procedures for serious incidents that could lead to personnel actions.
- Clear requirements that outline the appropriate dispositions that would be expected based upon the nature of the incident and its resolution.

Condition: Thirty of the one hundred eighty-six registered incidents (complaints and requests for review) recorded in the OIM database from January 1, 2011 through October 17, 2011 were reviewed. The following items were noted:

- There were four incidents that were either deleted or were not created in the first place.
- There were five incidents where the initiator wished to be contacted as to the resolution. Documentation indicated that only one of the five was contacted.
- One incident reviewed resulted in an oral reprimand. Documentation indicated a written reprimand was appropriate, but too much time had transpired for that to happen.
- One of the incidents indicated that in-service training for staff was an appropriate resolution. The in-service training did not occur.

Effect: The above conditions have the following effects:

- Management could not be sure that all incidents were properly recorded in the OIM database
- Management could not be sure that incident resolutions were reported to initiators when requested. If initiators were not contacted they may feel that the incidents reported were not taken seriously.
- Appropriate personnel actions may not have been administered.
- Training that should have been delivered to operator personnel was not provided.

Cause: The OIM database continues to be a work-in-progress and could be more fully developed to provide additional edit fields and prompts that would help management to follow-up and address the incidents appropriately.

Recommendation: It is the understanding of the users that incidents cannot be deleted from the OIM database. Investigate the database properties to determine how the records for the four missing incidents were either deleted or not created. Ensure that any enhancements made to the database are tested to ensure that additional records cannot be deleted and new records cannot be created out of sequence.

Build-in additional elements to the OIM database that would provide for the following:

- A requirement that all incidents remain open until the field that records initiator contact is populated if the field indicating that the initiator wishes to be contacted is populated. (Incidents created as complaint types have the above requirement. According to the Office Manager, the exceptions noted above began as requests for reviews and were later changed to complaints.) Additionally, document the type of contact that occurred and the initiator's response
- Create or modify fields that would prompt management to follow-up with timely actions to appropriately address needed personnel actions related to the reported incident.
- Create or modify fields that would require a training date where departmental training was an appropriate final disposition for the incident.

Management Response: The person who developed the database is reviewing the system to determine any systemic problems that would cause the system to skip an indexed number. Once the problem is identified he will initiate corrective action to ensure that once the "submit" button is activated an index number will be assigned before any other action can be completed.

The data base will also be modified to ensure no complaint can be closed if there is a requirement to call the complainant back with a response. Once the date and time of the contact is entered then the complaint can be closed. In addition when training is specified as needed in the review process, the call cannot be closed until the new date and trainer fields are completed.

It appears that most other problems occurred when the old database was imported into the new one so any other corrective action for any other mistakes can be taken.

Additional Comment

As noted in the background section, the 911 Call Center directly contributes to the overall safety of Douglas County residents. Because of the importance of the Call Center to public safety, an all-encompassing review of its operations should be considered to help ensure that all functions of the Call Center operate effectively. CALEA certification would provide officials charged with oversight a high level of assurance that the Call Center operations are following industry best practices. It is the Auditor's opinion that certification is desirable and should be encouraged. Of course, certification must be considered in light of current budget constraints. It should be noted that certification can sometimes provide financial benefits in reduced legal liabilities and insurance premiums.

Audit Standards

Internal Audit conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that the audit is planned and performed to obtain sufficient, appropriate evidence to provide a reasonable basis for the findings and conclusions based on the audit objectives. Internal Audit believes that the evidence obtained provides a reasonable basis for its findings and conclusions based on the audit objectives.

Internal Audit appreciates the excellent cooperation provided by the 911 Call Center management and its staff. If you have any questions or wish to discuss the information presented in this report, please feel free to contact me at (402) 444-4327.

Sincerely,

Mike Dwornicki
Internal Audit Director

cc: Paul Tomoser
Tom Cavanaugh
Jack Armitage
Ron Bucher
Joni Davis
Kathleen Kelley
Joe Lorenz
Patrick Bloomingdale
Fred Weber

Appendix I

Selected CALEA Standards

Standard	Expected Measure to Meet Standard
<p>General Administration</p> <p>The agency establishes a written directive specifying an administrative reporting program.</p>	<ul style="list-style-type: none"> • A listing of all administrative reports generated from Communications. • A statement as to the persons or positions responsible for producing said reports. • A statement of the express purpose of each report. • A statement identifying the frequency of each report. • A statement outlining the specific distribution of each report.
<p>Organizational Integrity</p> <p>A written directive requires all complaints against the agency or its employees be investigated.</p>	<ul style="list-style-type: none"> • Identify the type of complaints to be investigated by line supervisors. • Establish necessary authority for Internal Affairs function reporting directly to the agency's Chief Executive Officer. • Identify the type of complaints that require investigation by the Internal Affairs function. • Identify the type of complaints to be reviewed by the Internal Affairs function.

<p>Organizational Integrity</p> <p>A written directive establishes specific timelines for completion of “internal affairs” investigations.</p>	<ul style="list-style-type: none"> • Written statements are created notifying an employee that he or she has become the subject of an Internal Affairs investigation. • Process in place reflects verification of receipt that complaint has been received for processing. • Period status reports are produced. • Notification is made of the results of the investigation upon conclusion.
<p>Organizational Integrity</p> <p>A written directive is in place regarding the conclusion of fact for each investigation into allegation of misconduct.</p>	<ul style="list-style-type: none"> • Written notification is made, in a structured format, providing information to all participants of the outcome. • Record filing system is in place to maintain copies of all complaints against the agency or employees.
<p>Agency Performance Measurement</p> <p>A written directive establishes a performance measurement</p>	<ul style="list-style-type: none"> • Training to promote understanding of general performance measurement concept. • Implementation of specific performance measurement techniques. • Identification of activities and outcomes to be measured. • Performance measurement methodology which addresses specific techniques for data collection, processing, data cleaning, and reporting. • Opportunities for feedback about performance measurement data and service delivery from internal staff and outside entities.

<p>Training</p> <p>A written directive establishes a</p> <p>Communications Officer training program for new hires including both classroom training and field-training program, which include provisions for the applicable standards listed</p>	<ul style="list-style-type: none"> • Curriculum established based on tasks or the most important and frequent assignments. • Use of evaluation techniques and guidelines designed to measure competency in required skills, knowledge, and abilities. • Field training of a minimum of four weeks for trainees, during and/or after required classroom training. • Rotation of new hire assignments. • Entry level training meets requirements of APCO's National Public Safety Telecommunication Training Standard or a similar program. • Rotation of new hires among the various training activities.
<p>Training</p> <p>A written directive requires all public safety agency personnel to complete an annual retraining.</p>	<ul style="list-style-type: none"> • Rules and regulations established with emphasis on changes. • Retraining on emergency medical service as it affects the Communications Center operations. • Updated system procedures and requirements.
<p>Operations</p> <p>Supervisors make and document quality checks telecommunicators' handling of calls.</p>	<p>Establish quality checks of telecommunicator handling of calls.</p> <ul style="list-style-type: none"> • Document quality checks of telecommunicator handling of calls.

<p>Operations</p> <p>A written directive describing procedures is in place and immediately available to Communications Center personnel receiving calls.</p>	<ul style="list-style-type: none"> • Judging characteristics of calls to determine whether emergency or non-emergency response is required. • Handling of emergency calls, priority calls and calls requiring special response. • Handling non-emergency and administrative calls by informing the caller of the public service agency response.
<p>Operations</p> <p>A written directive policy establishes procedures for obtaining and recording relevant information by telecommunicators.</p>	<ul style="list-style-type: none"> • Control number. • Date and time of request. • Name and address of complainant. • Type of incident reported. • Location of incident reported. • Identification of units assigned as primary and backup. • Time of dispatch. • Time of first arrival. • Time of last unit to return to service. • Disposition or status of reported incident.
<p>Operations</p> <p>A written directive establishes procedures for prompt handling and appropriate routing of misdirected emergency calls.</p>	<ul style="list-style-type: none"> • Accept any misdirected emergency calls. • Promptly relay information to appropriate agency having jurisdiction.
<p>Operations</p> <p>A written directive establishes procedures for handling hang-up emergency or 911 calls.</p>	<ul style="list-style-type: none"> • Prepared to respond to these calls. • Statement that there is no emergency is recorded. • Prompt follow up by emergency responders.

<p>Operations</p> <p>A written directive establishes procedures for monitoring alarms.</p>	<ul style="list-style-type: none"> • List of circumstances and conditions by which the agency monitors alarms. • Procedures for responding to alarm activations.
<p>Operations</p> <p>Ability to communicate with other-than-English speaking callers.</p>	<ul style="list-style-type: none"> • Translator available, but does not have to be an agency employee. • Translator available from a professional or volunteer service on an as-needed basis.
<p>Operations</p> <p>24-hour, toll-free voice and TDD telephone access is in place for emergency calls.</p>	<ul style="list-style-type: none"> • Equipped with a TDD or TTY machine.
<p>Operations</p> <p>Agency uses a single emergency telephone number.</p>	<ul style="list-style-type: none"> • If jurisdiction does not have a 911 system, adopt an easily remembered phone number to be used by citizens.
<p>Operations</p> <p>Telephone system designed to separate emergency from non-emergency calls.</p>	<ul style="list-style-type: none"> • Routing established to avoid any instance of busy signal.
<p>Operations</p> <p>Agency has the capability of immediate playback capability of recorded telephone calls and continuous recording of radio transmissions and emergency telephone conversations.</p>	<ul style="list-style-type: none"> • Recordings to be retained for a minimum of 30 days. • Secure handling and storage. • Criteria and procedures for reviewing recorded information.

<p>Operations</p> <p>A written directive establishes a case numbering system with provisions for the assignment of a unique number to each case.</p>	<ul style="list-style-type: none"> • Single numbering series employed for all incidents or calls. • Numbering system designed to ensure all cases receive a number, no number is omitted and no number is duplicated.
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